

## MICHELSON INTERFEROMETER

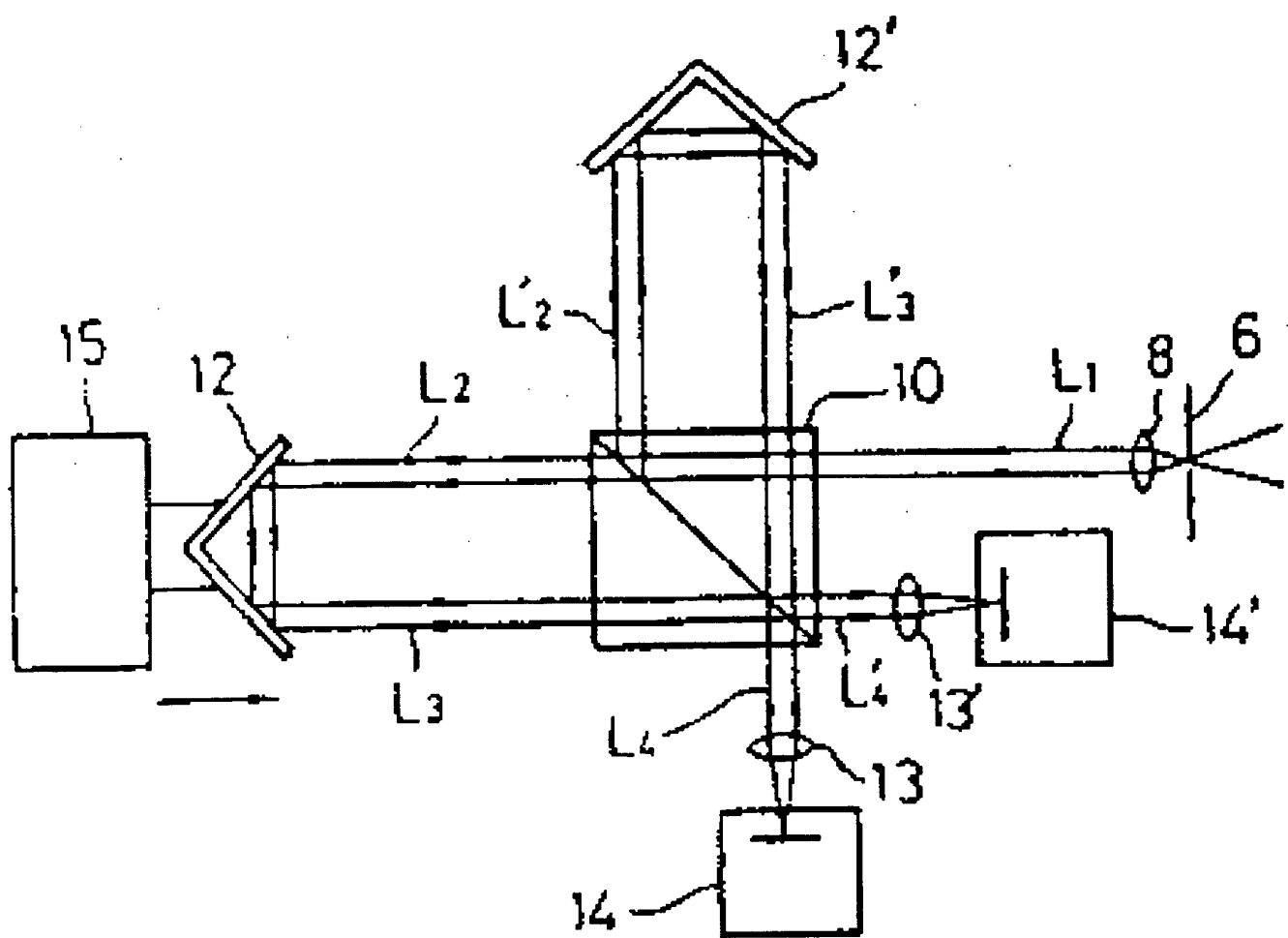
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Inventor(s): TADOKORO TOSHIYASU  
Applicant(s): JAPAN SPECTROSCOPIC CO  
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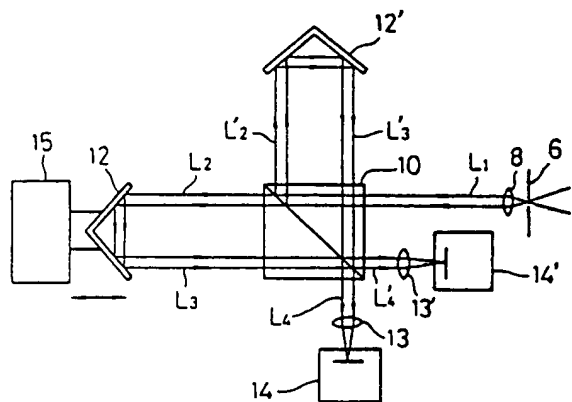
### Abstract

**PURPOSE:** To detect the intensity of interference light by two detectors at the same time by splitting incident luminous flux into transmitted luminous flux and reflected luminous flux, reflecting them by two reverse traveling optical means, and obtaining two pieces of interference luminous flux.

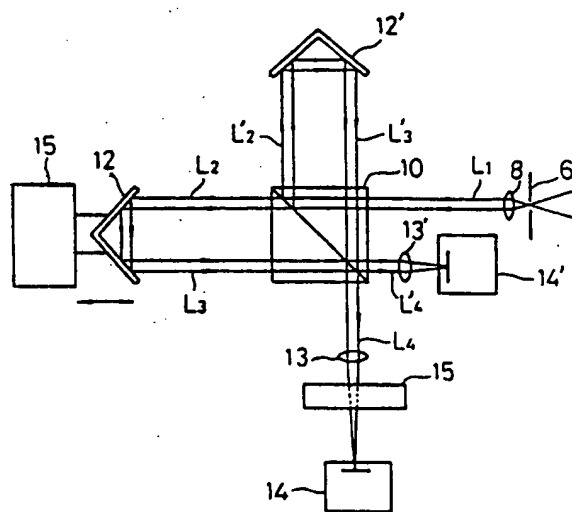
**CONSTITUTION:** The incident luminous flux L1 is split by a beam splitter 10 into the transmitted luminous flux L2 and reflected luminous flux L2', which are reflected by corner cube reflectors 12 and 12' to obtain pieces of reverse traveling flux L3 and L3' which are parallel to the pieces of luminous flux L2 and L2' and do not overlap each other. Those pieces of luminous flux L3 and L3' are returned to the splitter 10 to interfere with each other and their pieces of luminous flux L4 and L4' are converged and projected on the photodetection surfaces of photodetectors 14 and 14' through convex lenses 13 and 13'. Then a linear driving device 15 moves a reflector 12 reciprocally in the directions of the pieces of luminous flux L2 and L3 and then the optical path difference between both pieces of luminous flux from the splitting position to the multiplexing position varies, so that the pieces of luminous flux L4 and L4' vary in light intensity with time. Therefore, the luminous flux L1 is obtained by forming white light to the luminous flux L1 through a sample and then an interferogram which shows the optical path difference on the axis of abscissa and the output value of the photodetector 14 or 14' on the axis of ordinate is obtained.

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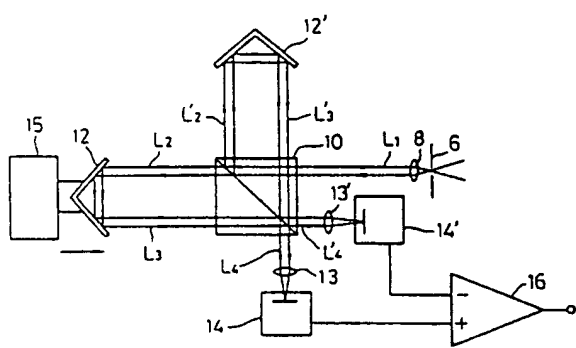




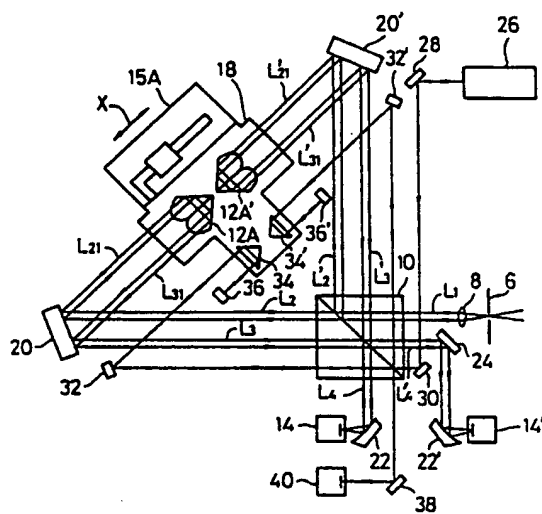
第 1 図



第 2 図



第 3 図



第 4 図